Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 330300146WO1	**FOR FURTHER ACTION**	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/JP2003/008927	International filing date (*day/month/year*) 14 July 2003 (14.07.2003)	Priority date (*day/month/year*)
International Patent Classification (IPC) or national classification and IPC G02F 1/1343, 1/1368		
Applicant HITACHI DISPLAYS, LTD.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 3 sheets, including this cover sheet.

   ☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

   These annexes consist of a total of _____ sheets.

3. This report contains indications relating to the following items:

   - I ☒ Basis of the report
   - II ☐ Priority
   - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
   - IV ☐ Lack of unity of invention
   - V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
   - VI ☐ Certain documents cited
   - VII ☐ Certain defects in the international application
   - VIII ☐ Certain observations on the international application

Date of submission of the demand 14 July 2003 (14.07.2003)	Date of completion of this report 11 December 2003 (11.12.2003)
Name and mailing address of the IPEA/JP Facsimile No.	Authorized officer Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/JP2003/008927

I. Basis of the report

1. With regard to the elements of the international application:*

☒ the international application as originally filed

☐ the description:

pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

☐ the claims:

pages _____, as originally filed
pages _____, as amended (together with any statement under Article 19
pages _____, filed with the demand
pages _____, filed with the letter of _____

☐ the drawings:

pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

☐ the sequence listing part of the description:

pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.
These elements were available or furnished to this Authority in the following language _____ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).

☐ the language of publication of the international application (under Rule 48.3(b)).

☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages _____

☐ the claims, Nos. _____

☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* *Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).*

** *Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.*

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/JP03/08927

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-20	YES
	Claims		NO
Inventive step (IS)	Claims	9-17	YES
	Claims	1-8, 18-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims		NO

2. Citations and explanations

Document 1: JP, 2003-149664 A (Hitachi, Ltd.), 21 May, 2003
Document 2: US, 6128061 A (Lee et al.), 03 October 2000
Document 3: US, 6233034 B1 (Lee et al.), 15 May, 2001
Document 4: US, 2002/ 1867 A1 (Sung et al.), 03 January, 2002
Document 5: JP, 11-101992 A (Sharp Corp.), 13 April, 1999
Document 6: US, 6281952 B1 (Okamoto et al.), 28 August, 2001

The subject matter of 1 to 2, 4, and 18 to 20 does not appear to involve an inventive step in view of document 1 and document 2. Adopting the electrode structure disclosed in document 2 (column 11, line 5 to column 12, line 4, and Fig. 16) for an area among the electrode structures disclosed in document 1 (paragraphs 0066 to 0070, Fig. 9) wherein the counter-electrode is a reflective-type, would be easy for a person skilled in the art.

The subject matter of claim 3 does not appear to involve an inventive step in view of document 1 and 2 and document 3 and 4 cited in the ISR. Making an entire counter-electrode from a translucent member is widely known (for example, refer to document 3, column 20, line 25 to column 21, line 18, Fig. 14, and Fig. 15; document 4, paragraphs 0005 to 0007, and Fig. 2), and forming an entire counter-electrode from a translucent member would be easy for a person skilled in the art.

The subject matter of claims 5 to 8 does not appear to involve an inventive step in view of document 5 and document 6 cited in the ISR. Increasing the cell thickness of a reflective region to be larger than that of a transmissive region by varying the thickness of an insulation film on an electrode is widely known (for example, refer to document 5, (paragraphs 0057 to 0063, Fig. 10), document 6 (column 18, line 21 to column 20, line 14, Fig. 1), and increasing the cell thickness of a reflective region to be larger than that of a transmissive region by varying the thickness of an insulation film on an electrode in the invention of document 1 wherein the electrode structure of document 2 is employed would be easy for a person skilled in the art. In addition, the specific thickness of an insulation film and the cell thickness of a transmissive region and a reflective region respectively could be designed easily by a person skilled in the art.

The subject matter of claims 9 to 17 is neither described in any of the documents cited in the ISR nor obvious to a person skilled in the art.